This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the claims:

Claims 1-79 (canceled)

1 Claim ~~80~~ (currently amended): A method for assessing skeletal muscle damage in a subject, comprising detecting the presence or absence or measuring the amount of:

(a) a peptide fragment of a myofilament protein; or

(b) a covalent or non-covalent complex of at least:

(i) a peptide fragment of a myofilament protein and an intact myofilament protein; or

(ii) two peptide fragments of myofilament proteins,

in a biological sample obtained from a subject being assessed for skeletal muscle damage, said biological sample being selected from the group consisting of skeletal muscle tissue, a component of skeletal muscle tissue, blood, blood serum and urine, by incubating the biological sample with an antibody or ~~a functional fragment of an antibody~~ antigen specific fragment thereof that specifically binds to the peptide fragment of a myofilament protein under conditions which allow the antibody or ~~functional fragment of the antibody~~ antigen specific fragment thereof to form a complex with the

(a) peptide fragment of a myofilament protein; or

(b) covalent or non-covalent complex of at least:

(i) a peptide fragment of a myofilament protein and an intact myofilament protein; or

(ii) two peptide fragments of myofilament proteins,

and detecting or measuring the formed complex,

wherein said peptide fragment of the myofilament protein or said peptide fragment of the covalent or non-covalent complex formation consists of:

a skeletal troponin I peptide fragment, or

a skeletal troponin T peptide fragment,

and wherein the presence or amount of:

(a) the peptide fragment of the myofilament protein; or

(b) the covalent or non-covalent complex of at least:

(i) the peptide fragment of the myofilament protein and the intact myofilament protein; or

(ii) two peptide fragments of myofilament proteins,

in the biological sample is associated with skeletal muscle damage.

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Claim ~~81~~ (previously presented): The method of claim ~~80~~ 1, wherein the peptide fragment of the myofilament protein or the covalent or non-covalent complex of at least:

(i) a peptide fragment of a myofilament protein and an intact myofilament protein; or

(ii) two peptide fragments of myofilament proteins consists of a covalent complex.

Claim 82 (previously presented): The method of claim 80 wherein the presence of at least two different peptide fragments of myofilament proteins or covalent or non-covalent complexes is detected.

Claim 83 (previously presented): The method of claim 80 wherein the amounts of at least two different peptide fragments of myofilament proteins or covalent or non-covalent complexes are measured and the measured amounts are compared as an indication of the extent of skeletal muscle damage in the subject.

Claim 84 (previously presented): The method of claim 80 wherein the ratio of at least two different peptide fragments of myofilament proteins or covalent or non-covalent complexes is assessed as an indication of the extent of skeletal muscle damage in the subject.

Claim 85-86 (canceled)

6 Claim ~~87~~ (previously presented): The method of claim ~~80~~ 1, wherein the complex is detected or measured by assaying for the presence of a label.

7 Claim ~~88~~ (previously presented): The method of claim ~~80~~ 1, wherein the antibody or functional fragment of the antibody is labeled with an enzyme which is detected by measuring enzymatic activity associated therewith.

8 Claim ~~89~~ (previously presented): The method of claim ~~88~~ 7, wherein the enzyme is selected from the group consisting of alkaline phosphatase, horseradish peroxidase, luciferase, beta-galactosidase, lysozyme, glucose-6-phosphate dehydrogenase, lactate dehydrogenase, and urease.

9 Claim ~~90~~ (previously presented): The method of claim ~~80~~ 1, wherein the antibody or a functional fragment of an antibody is immobilized on a solid phase.

10 Claim ~~91~~ (previously presented): The method of claim ~~90~~ 9, wherein the solid phase is a plastic surface.

11 Claim ~~92~~ (previously presented): The method of claim ~~80~~ 1 wherein the skeletal muscle damage is reversible.

12 Claim ~~93~~ 11 (previously presented): The method of claim ~~92~~ wherein the skeletal muscle damage is due to at least one condition selected from the group consisting of hypoxia, hypoxemia, ischemia, fatigue and reperfusion.

13 Claim ~~94~~ 1 (previously presented): The method of claim ~~80~~ wherein the skeletal muscle damage is irreversible.

14 Claim ~~95~~ 13 (previously presented): The method of claim ~~94~~ wherein the skeletal muscle damage is due to at least one condition selected from the group consisting of hypoxia, hypoxemia, ischemia, and reperfusion.

Claim 96 (canceled)

15 Claim ~~97~~ (currently amended): A method for assessing skeletal muscle damage in a subject, comprising detecting the presence or absence or measuring amounts of at least two different:

(a) peptide fragments of a myofilament protein

(b) covalent or non-covalent complexes of at least:

(i) a peptide fragment of a myofilament protein and an intact myofilament protein; or

(ii) two peptide fragments of a myofilament protein,

in a biological sample obtained from a subject being assessed for muscle damage, said biological sample being selected from the group consisting of skeletal muscle tissue, a component of skeletal muscle tissue, blood, blood serum and urine, by incubating the biological sample with an antibody or ~~a functional fragment of an antibody~~ antigen specific fragment thereof that specifically binds to the peptide fragment of a myofilament protein, under conditions which allow the antibody or ~~functional fragment of the antibody~~ antigen specific fragment thereof to form a complex with the

(a) peptide fragment of a myofilament protein; or

(b) covalent or non-covalent complex of at least:

(i) a peptide fragment of a myofilament protein and an intact myofilament protein; or

(ii) two peptide fragments of myofilament proteins,

and detecting or measuring the formed complex,

wherein said peptide fragments of the myofilament protein or said peptide fragments of the covalent or non-covalent complexes consist of:

skeletal troponin I peptide fragments, or

skeletal troponin T peptide fragments,

wherein the presence or amount of the:

(a) peptide fragments of the myofilament protein; or

(b) covalent or non-covalent complexes of at least:

(i) the peptide fragment of the myofilament protein and the intact myofilament protein; or

(ii) two peptide fragments of the myofilament protein,

in the biological sample are associated with muscle damage, and

wherein the

(a) peptide fragments of the myofilament protein; or

(b) covalent or non-covalent complexes of at least:

(i) the peptide fragment of the myofilament protein and the intact myofilament protein; or

(ii) two peptide fragments of the myofilament protein,

are from the same myofilament protein.

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16 Claim ~~98~~ (previously presented): The method of claim ~~97~~ wherein the ratio of the

(a) peptide fragments of the myofilament protein; or

(b) covalent or non-covalent complexes of at least:

(i) the peptide fragment of the myofilament protein and the intact myofilament protein; or

(ii) two peptide fragments of the myofilament protein,

from the same myofilament protein is assessed as an indication of the extent of the muscle damage in the subject.

Claim 99-102 (canceled)

17 Claim ~~103~~ (new): The method of claim ~~80~~ 1 wherein said biological sample is skeletal muscle tissue.

18 Claim ~~104~~ (new): The method of claim ~~80~~ 1 wherein said biological sample is a component of skeletal muscle tissue.

19 Claim ~~105~~ (new): The method of claim ~~80~~ 1 wherein said biological sample is blood.

20 Claim ~~106~~ (new): The method of claim ~~80~~ 1 wherein said biological sample is blood serum.

21 Claim ~~107~~ (new): The method of claim ~~80~~ 1 wherein said biological sample is urine.

22 Claim ~~108~~ (new): The method of claim ~~87~~ 15 wherein said biological sample is skeletal muscle tissue.

23 Claim ~~109~~ 15 (new): The method of claim ~~97~~ wherein said biological sample is a component of skeletal muscle tissue.

24 Claim ~~110~~ 15 (new): The method of claim ~~97~~ wherein said biological sample is blood.

25 Claim ~~111~~ 15 (new): The method of claim ~~97~~ wherein said biological sample is blood serum.

26 Claim ~~112~~ 15 (new): The method of claim ~~97~~ wherein said biological sample is urine.